

IX. INCIDENTAL TAKE STATEMENT

Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. NMFS further defines “harm” as an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns including breeding, spawning, rearing, migrating, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and 7(o)(2), taking that is incidental to and not intended as part of the proposed action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this Incidental Take Statement.

The measures described below are nondiscretionary, and must be undertaken by NMFS for the exemption in section 7(o)(2) to apply. NMFS has a continuing duty to regulate the activity covered by this incidental take statement. If NMFS fails to assume and implement the terms and conditions, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, NMFS must monitor the progress of the action and its impact on the species as specified in the incidental take statement. (50 CFR §402.14(I)(3))

Section 7(b)(4) of the ESA requires that when a proposed agency action is found to be consistent with section 7(a)(2) of the ESA and the proposed action may incidentally take individuals of listed species, NMFS will issue a statement that specifies the impact of any incidental taking of endangered or threatened species. It also states that reasonable and prudent measures, and terms and conditions to implement the measures, be provided that are necessary to minimize such impacts. Only incidental take resulting from the agency action and any specified reasonable and prudent measures and terms and conditions identified in the incidental take statement are exempt from the taking prohibition of section 9(a), pursuant to section 7(o) of the ESA.

AMOUNT OR EXTENT OF TAKE

NMFS has developed the following incidental take statement based on implementation of the reasonable and prudent alternative. The incidental take of greens, leatherbacks, loggerheads, and olive ridleys has been calculated based on the estimated impact that remains following the implementation of the time/area closure and fishing method prohibitions. The following table contains the anticipated amounts of estimated takes and/or mortalities that will occur annually, by the Hawaii-based longline fishery under the western Pacific Pelagics Fishery Management Plan.

The annual estimated incidental take of sea turtles has been calculated by multiplying the upper bound of the annual estimated incidental take for the proposed action (see Table IV-15) by the percent of impact (based on the point estimates and 95% confidence intervals of impact reduction outlined in Table VIII-1) estimated to remain after implementation of the two primary measures in the RPA. The annual estimated incidental mortality is calculated by adding the 1) immediate mortality (multiplying annual estimated incidental take by the immediate mortality rate for that species of sea turtle in the tuna

fishery) and 2) delayed mortality (multiplying the hooked animals by the delayed mortality rate of 27 to 42 percent based on rates of deep and light hooking for the species in the tuna-style gear segment of the fishery). Note that the higher annual estimated incidental take numbers and estimated mortality are representative of a worst-case scenario in which the observer data used to evaluate impact to the species and formulate the reasonable and prudent alternative are not reflective of the actual incidence and distribution of takes in the tuna style gear segment of the Hawaii-based longline fishery.

NMFS anticipates that mortality levels in this fishery will be much lower than the worst case numbers provided below based on requirements under the reasonable and prudent alternative to reduce the levels of injury and mortality in this fishery through measures such as removal of hooks and trailing gear and resuscitation of comatose turtles, although we cannot quantify how much of a reduction may occur. NMFS also anticipates that loggerhead turtles may be captured in the tuna segment of the Hawaii-based longline fishery, although such interactions are expected to be very rare. To account for such rare events, NMFS anticipates that up to 5 loggerheads may be taken by the tuna fishery annually. This estimate of total interactions by the fishery for any given year would be the result of one observed interaction in a fishery with 20% observer coverage.

Table IX-1. Estimated annual capture and mortality levels in the Hawaii-based longline fishery after implementation of the Reasonable and Prudent Alternative measures for this fishery based on a worse case analysis (see above discussion). Numbers in parentheses are estimates based on the 95% confidence intervals for the point estimates ¹.

Species	Annual Estimated Incidental Take	Annual Estimated Incidental Mortality
Green	14 (0-41)	9 (0-27)
Leatherback	26 (0-59)	14 (0-32)
Loggerhead	0-5	0-2
Olive Ridley	67 (1-137)	59 (1-121)

¹Where numbers represented fractions of turtles, the number was rounded up to represent a whole turtle. “Entangled” turtles, because they were not recorded as “alive and uninjured” were assigned a mortality rate of 27%.

All four species of sea turtles may be taken in the other fisheries authorized by the Pelagics FMP. The known level of effort and the selectivity of the gear used in these fisheries leads NMFS to conclude that few takes, if any, occur in these other fisheries, although NMFS has limited data to confirm this assumption. Therefore, NMFS has quantified the amount of incidental take of sea turtles that may occur during operations of these other fisheries based on the limited information available. The resulting numbers (Table IX-2) are possible minimums that must be re-evaluated after one year of data has been gathered on these fisheries. Subsequent years information will be used to further refine expected levels of incidental take and evaluate their impacts on listed species.

Table IX-2. Estimated annual capture and mortality levels in the pelagic fisheries under the Pelagics FMP other than the Hawaii-based longline fishery.

Fishery	Annual Estimated Incidental Take (All Species Combined)	Annual Estimated Incidental Mortality (All Species Combined)
All handline fisheries	1	0
All troll fisheries	1	0
Pole and line	1	0
American Samoa longline	3 hardshell turtles, 1 leatherback	1 hardshell turtle
Guam longline	3 hardshell turtles, 1 leatherback	1 hardshell turtle
CNMI longline	3 hardshell turtles, 1 leatherback	1 hardshell turtle

IMPACT OF THE TAKE

In the accompanying Opinion, NMFS determined that this level of anticipated take is not likely to result in jeopardy to the green turtle, leatherback turtle, loggerhead turtle, or olive ridley turtle when the reasonable and prudent alternative is implemented.

Reasonable and Prudent Measures

NMFS believes the following reasonable and prudent measures, as implemented by the terms and conditions, are necessary and appropriate to minimize impacts to sea turtles and monitor levels of incidental take. The measures described below are non-discretionary, and must be undertaken by NMFS for the exemption in section 7(o)(2) to apply. If NMFS fails to adhere to the terms and conditions of the incidental take statement, the protective coverage of section 7(o)(2) may lapse. Thus, the following reasonable and prudent measures must be implemented to allow activities of the different fisheries managed by the Western Pacific Pelagics Fishery Management Plan to continue.

1. NMFS shall collect data on capture, injury and mortality of sea turtles in addition to life history information on longline fishing vessels.
2. NMFS shall develop a system that will enable NMFS to collect basic listed species bycatch data in the troll and handline fisheries under the Pelagics FMP.
3. Sea turtle mortalities shall be disposed of at sea unless NMFS requests retention of the carcass for sea turtle research.

Terms and Conditions

In order to be exempt from the prohibitions of Section 9 of the ESA, NMFS must comply or ensure compliance with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

1. The following terms and conditions implement reasonable and prudent measure No. 1.
 - 1A. NMFS shall continue the observer program aboard Hawaii-based limited access permit longline vessels to collect data on the incidental take of marine mammals, sea turtles, and other protected species. Observer coverage shall be maintained at an annual average level of 20 percent or more.
 - 1B. NMFS shall establish an observer program, where feasible, aboard longline vessels fishing under a Pelagics FMP general permit. The purpose of the observer program is to provide NMFS with information necessary to determine if these fisheries interact with listed species and what level of impact the fisheries might have on those species. The feasibility of establishing an observer program aboard these vessels may depend upon the space available on the vessel to house and maintain an observer to carry out their duties.
 - 1C. Observer programs shall collect information regarding the incidental capture, injury, and mortality of sea turtles by species, gear and set information in which each interaction occurred, and life history information.

- 1D. NMFS shall also collect life history information on sea turtles captured by longline fisheries, including species identification; measurements, including direct measure or visual estimates of tail length; condition; skin biopsy samples; and estimated length of gear left on the turtle at release.
 - 1E. NMFS observers shall record the presence or absence of tags on all sea turtles captured by longline fisheries.
 - 1F. Data collected by observers shall be evaluated at least on a quarterly basis to determine whether estimated annual incidental injuries or mortalities of sea turtles has exceeded allowable take levels. A report will be sent to the Sea Turtle Coordinator in Silver Spring, Maryland, shall be made available on the Southwest Regional website.
2. The following terms and conditions implement reasonable and prudent measure No. 2.
 - 2A. NMFS shall coordinate with the Forum Fisheries Agency observer program to collect life history information on sea turtles, such as species identification, measurements, condition, skin biopsy samples, the presence or absence of tags, and the application of flipper tags if none are present.
3. The following term and condition implements reasonable and prudent measure No. 3.
 - 3A. NMFS shall develop a system to collect basic listed species bycatch data associated with the troll and handline fisheries under the Pelagics FMP. Although NMFS understands that the State of Hawaii is in the process of implementing a logbook program, the logbooks will not include information on incidental bycatch of listed species because individuals that report interactions with a listed species could be prosecuted by the State Attorney General under the State of Hawaii ESA. Troll and handline fishermen do submit monthly catch revenue reports to the State of Hawaii, but these do not include interactions with listed species because the fishermen do not want to be prosecuted. To overcome this obstacle, NMFS shall develop an independent, anonymous survey that can be implemented either through a written survey (post-card mailer) or a dockside interview in an effort to obtain a better understanding and more representative data on interactions, if any, of listed species with the troll and handline fisheries.
4. The following term and condition implements reasonable and prudent measure No. 4.
 - 4A. Dead sea turtles may not be consumed, sold, landed, offloaded, transhipped or kept below deck, but must be returned to the ocean after identification unless NMFS requests the turtle be kept for further study.